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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/750,687 | 12/31/2003 | Ju Ho Kim | 11037-164-999 | 2204 |

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EXAMINER

SCHWARTZ, CHRISTOPHER P

| ART UNIT | PAPER NUMBER |
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3683

DATE MAILED: 04/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/750,687

Applicant(s)

KIM, JU HO

Examiner

Christopher P. Schwartz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-12 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

CHRISTOPHER P. SCHWARTZ
PRIMARY EXAMINER

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement has been received and considered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-,3,5,6,7,10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jolly et al. in view of Gordaninejad et al. ('018).

Regarding claim 1 Jolly et al. discloses in figure 6a a shock absorber having a piston 26f, a magnetic field generating unit (32f, 32f', 32f'') mounted on an interior side of the cylinder 22f.

Jolly et al. Lacks discussing what type of material the internal side of the cylinder is formed from.

The reference to '018 in the description of figure 7, and in column 8, states that the cover/housing 1,16 can be formed using either ferrous or non-ferrous materials.

One having ordinary skill in the art at the time of the invention would have found it obvious to have formed the cylinder of Jolly et al. from a "metallic material with relatively high electrical conductivity" dependent upon such well known factors as cost, weight and/or magnetic field characteristics desired.

Regarding claim 3 these requirements are met.

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Regarding claim 5, in view of the modification above, the choice of copper would simply be an obvious choice of materials to the ordinary skilled worker in the art.

Regarding claims 6 and 7 although Jolly et al. lacks a specific showing of the spring arrangement claimed in the embodiment of figure 6a such an idea is taught generally in figure 12a.

To have modified the embodiment of figure 6a to incorporate a spring arrangement, as generally taught by Jolly et al. in figure 12a, would have been obvious dependent upon the spring characteristics desired from the device for a specific application.

4. Claim 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Jolly et al. as modified as applied to claim 6 above, and further in view of Lin et al.

Regarding claim 9 note the spring arrangement taught by Lin et al. It is known in the art to add springs to supplement or adjust the damping characteristics of the absorbers upon specific applications.

One having ordinary skill in the art at the time of the invention would have found it obvious to have provided the device of Jolly et al. with a spring arrangement between the piston and the gas spring, as generally suggested by Lin et al., dependent upon the spring characteristics desired from the device for a specific application.

5. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jolly et al., as modified '018, as applied to claim 1 above, and further in view of Knapp.

Regarding claim 10 although Jolly et al, as modified, lacks a rotation restricting means, such idea is taught by Knapp. See column 8 beginning around line 42.

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To maintain axial alignment of the piston of Jolly et al. one having ordinary skill in the art at the time of the invention would have found it obvious to have provided the piston/cylinder with a rotation restricting means, as taught by Knapp, dependent upon the specific application for the device.

Regarding claims 11 and 12 these limitations are simply an alternate equivalent to the arrangement taught by Knapp.

6. Claims 1,3,5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gordaninejad et al.

Regarding claim 1 Gordaninejad et al. discloses in column 8 and in figure 7 all the features required except for the specifics of the metallic material from which the cylinder and/or piston is made.

However, in light of the discussions in columns 6 and column 8, the ordinary skilled worker at the time the invention was made would have found it obvious to have made the cylinder or piston from a material with relatively high electrical conductivity dependent upon such well known factors as cost, weight and/or magnetic field characteristics desired.

Regarding claim 3, as broadly claimed, these requirements are met. See the discussion on line 20 of column 8.

Regarding claim 5 the choice of copper would simply be an obvious choice of materials to the ordinary skilled worker in the art dependent upon weight, cost or magnetic characteristics desired from the damper.

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Regarding claims 6 and 7 in light of the discussion of column 8 lines 45+ to have used a spring in the manner claimed would have been obvious to the ordinary skilled worker in the art dependent upon the application for the device or damping characteristics desired.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over '018 as applied to claim 1 above, and further in view of Lisenker.

Regarding claim 4 as discussed in col 6 '018 does not require the piston to be material specific for the device to function.

Lisenker states at the bottom of column 4 that the piston may be with copper elements at 32,42.

Dependent upon the magnetic field strength/characteristics desired one having ordinary skill in the art at the time of the invention would have found it obvious to have formed an exterior part of the piston of '018, of copper, as taught by Lisenker.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over '018 as applied to claim 6 above, and further in view of Lin et al.

Regarding claim 9 note the spring arrangement taught by Lin et al.

One having ordinary skill in the art at the time of the invention would have found it obvious to have provided the device of '018, as modified with a spring arrangement between the piston and the cylinder as generally suggested by Lin et al., dependent upon the spring characteristics desired from the device for a specific application.

9. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over '018, as applied to claim 1 above, and further in view of Knapp.

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Regarding claim 10 although '018, as modified, lacks a rotation restricting means, such idea is taught by Knapp. See column 8 beginning around line 42.

To maintain axial alignment of the piston of '018 one having ordinary skill in the art at the time of the invention would have found it obvious to have provided the piston/cylinder of '018 with a rotation restricting means, as taught by Knapp, dependent upon the specific application for the device.

Regarding claims 11 and 12 these limitations are simply an alternate equivalent to the arrangement taught by Knapp.

Allowable Subject Matter

10. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

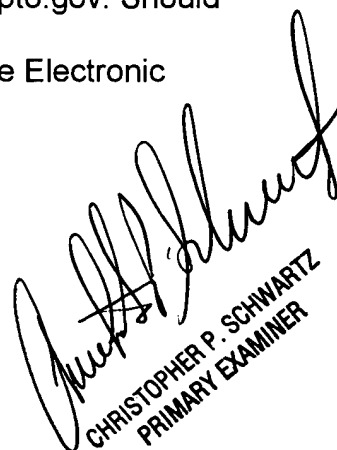
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Schwartz whose telephone number is 703-308-0576. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack W. Lavinder can be reached on 703-308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cps
4/20/04



CHRISTOPHER P. SCHWARTZ
PRIMARY EXAMINER